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Huffman

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(54) **AUTOGRAPH BALL WITH REMOVABLE WRITING UTENSIL**

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(51) **Int. Cl.**

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B43K 7/00	(2006.01)
B43K 8/02	(2006.01)
A63B 43/00	(2006.01)

(52) **U.S. Cl.**

CPC ***B43K 23/001*** (2013.01); ***A63B 43/00*** (2013.01); ***B43K 7/005*** (2013.01); ***B43K 8/02*** (2013.01)

(58) **Field of Classification Search**

CPC combination set(s) only.

See application file for complete search history.

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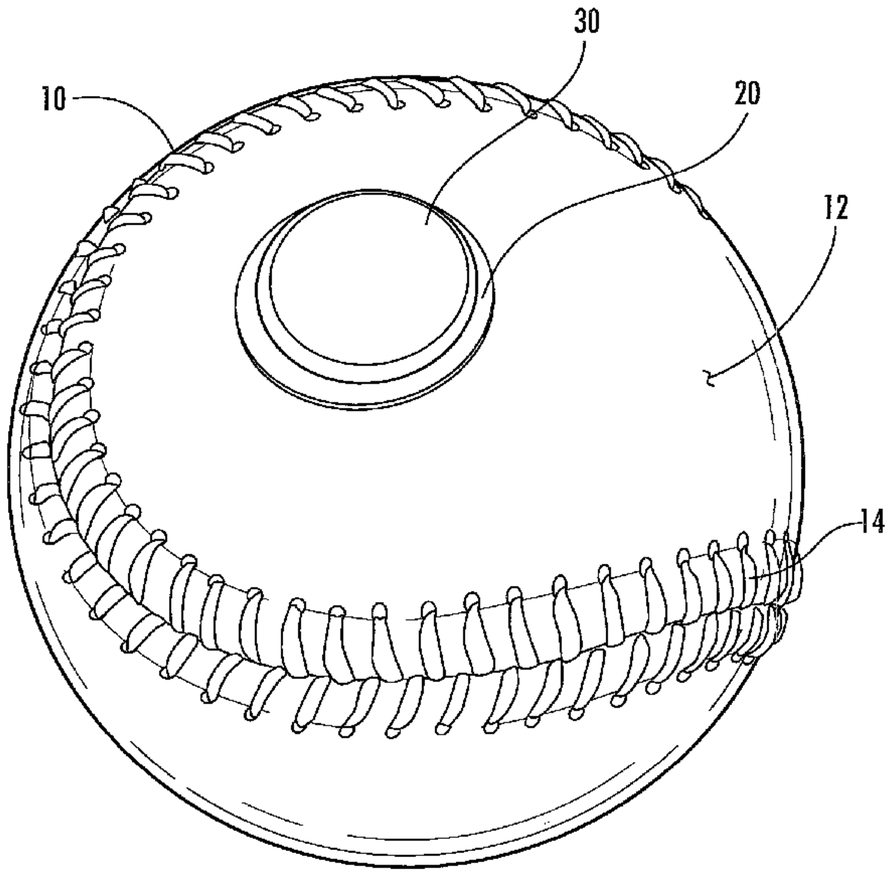
(57) **ABSTRACT**

A sports implement for obtaining autographs, having a core, a hole in the core having an open end and a closed bottom end, a housing disposed within the hole further comprising a latch, a spring, and a stop rim. The implement further includes a cap rotatably and slidably disposed within the housing comprising a first position wherein the cap compresses the spring toward the closed bottom end and a second position wherein the spring urges the cap against the stop rim, and a writing utensil removably coupled with the cap and rotationally coupled with the housing, further comprising a striker selectively interfacing with the latch.

19 Claims, 6 Drawing Sheets



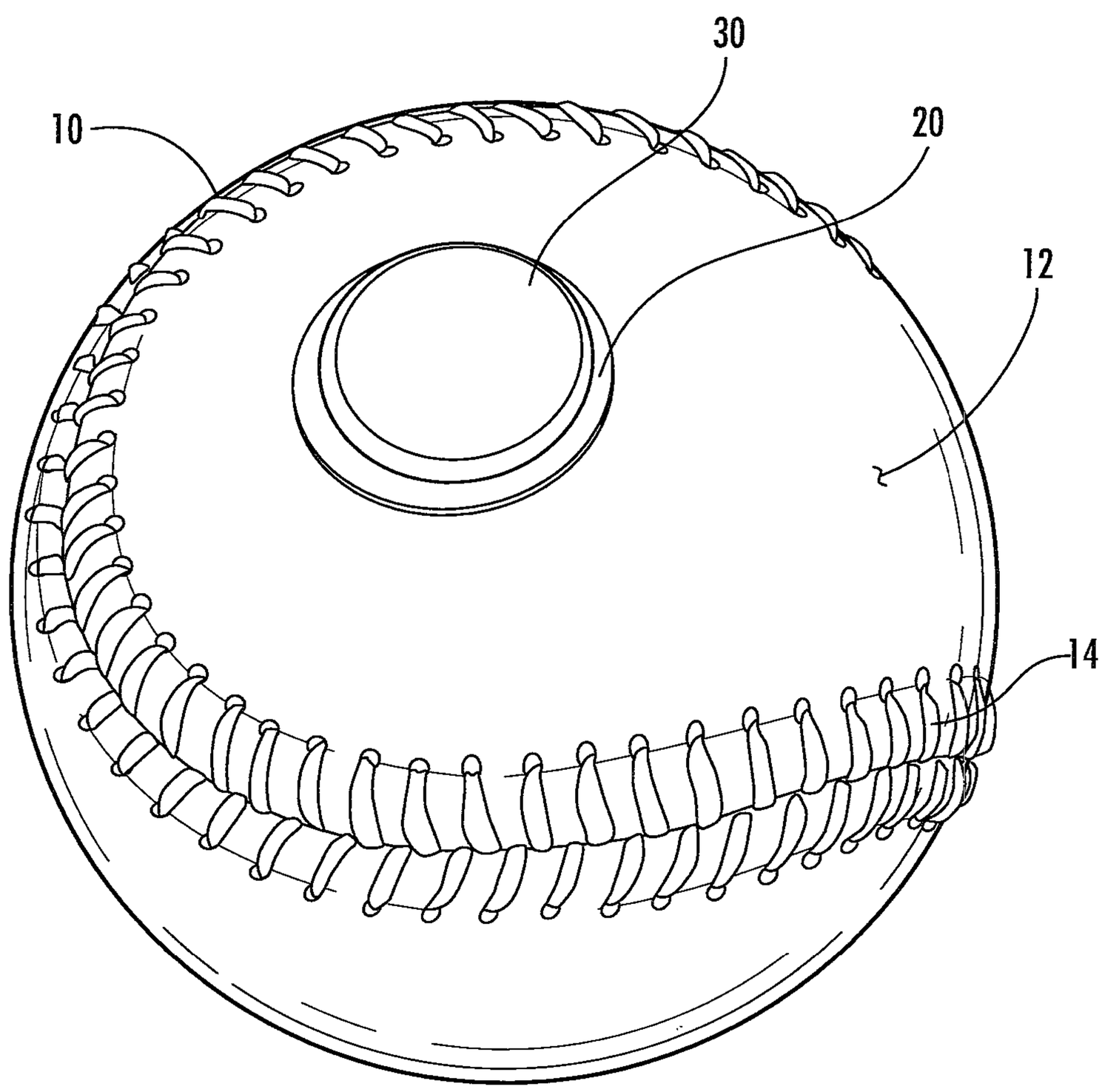


FIG. 1

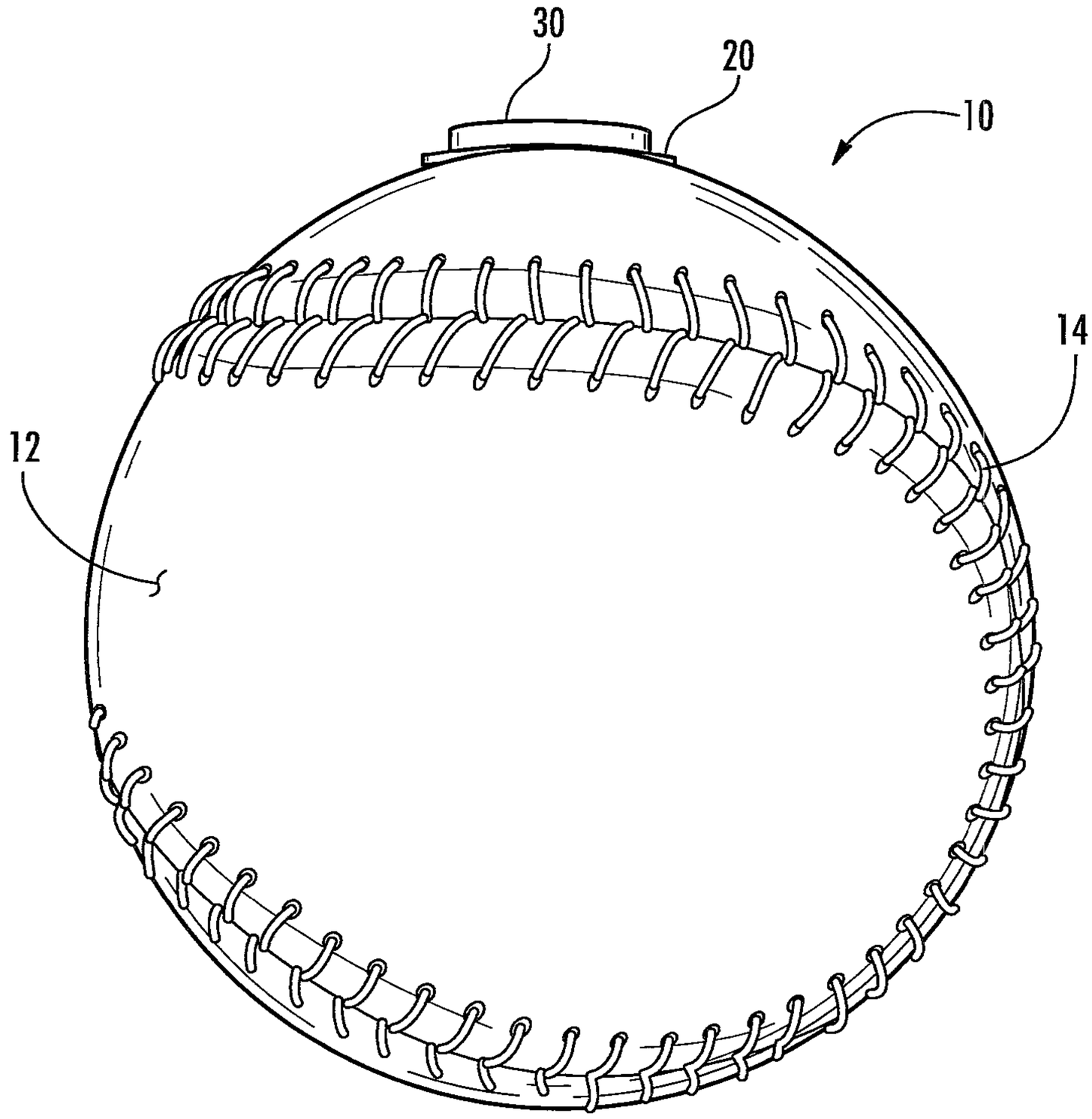


FIG. 2

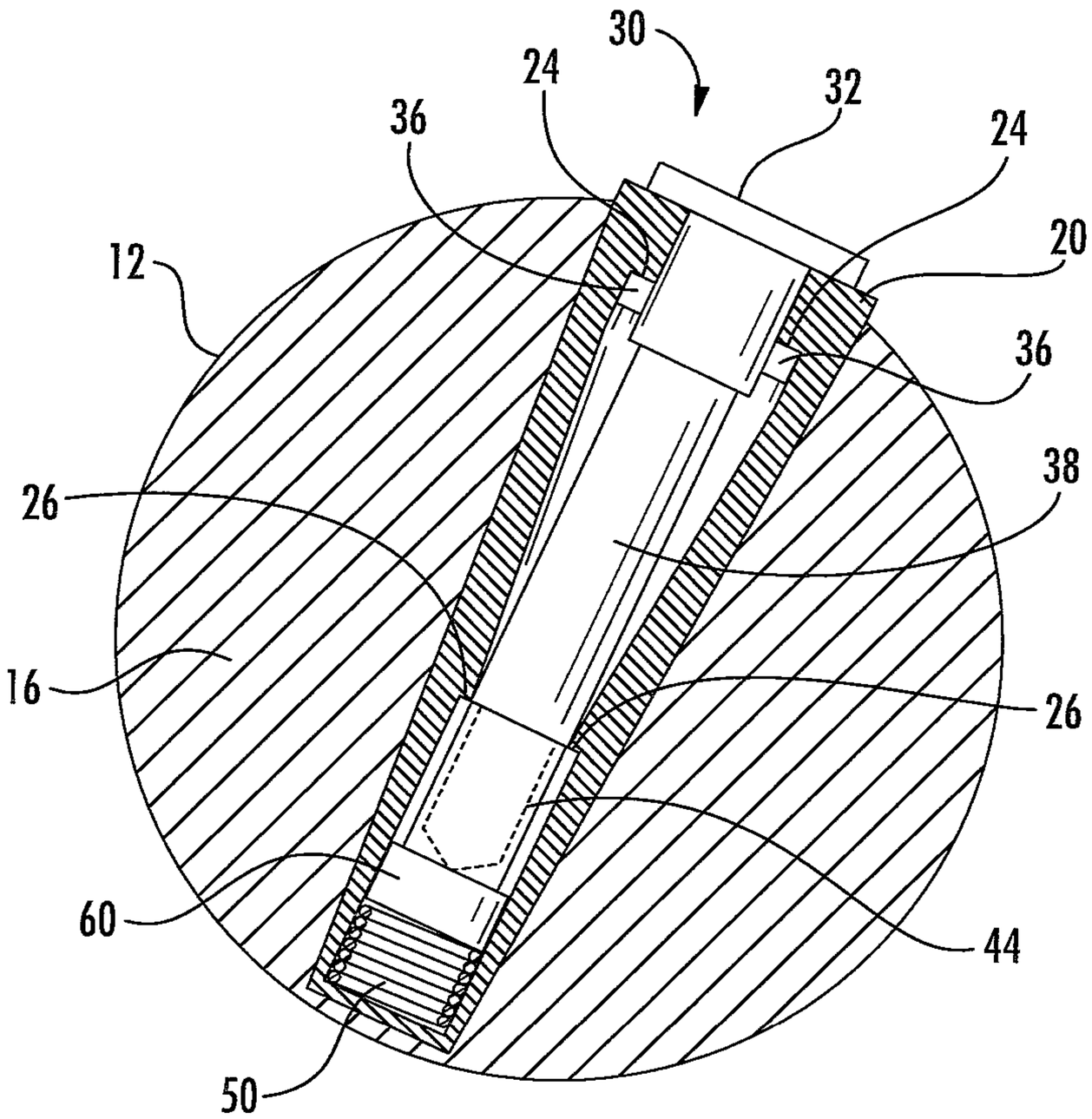


FIG. 3

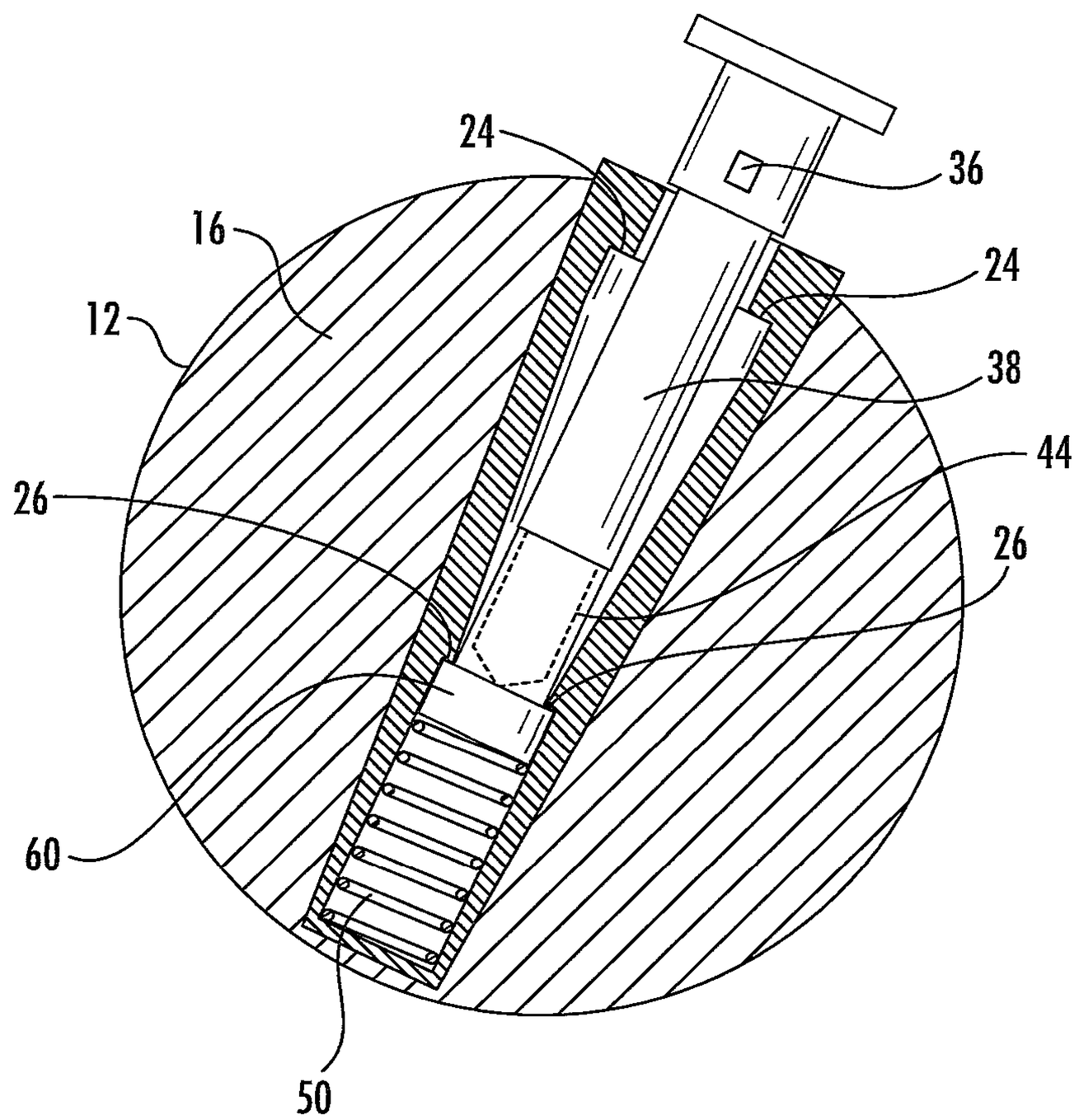


FIG. 4

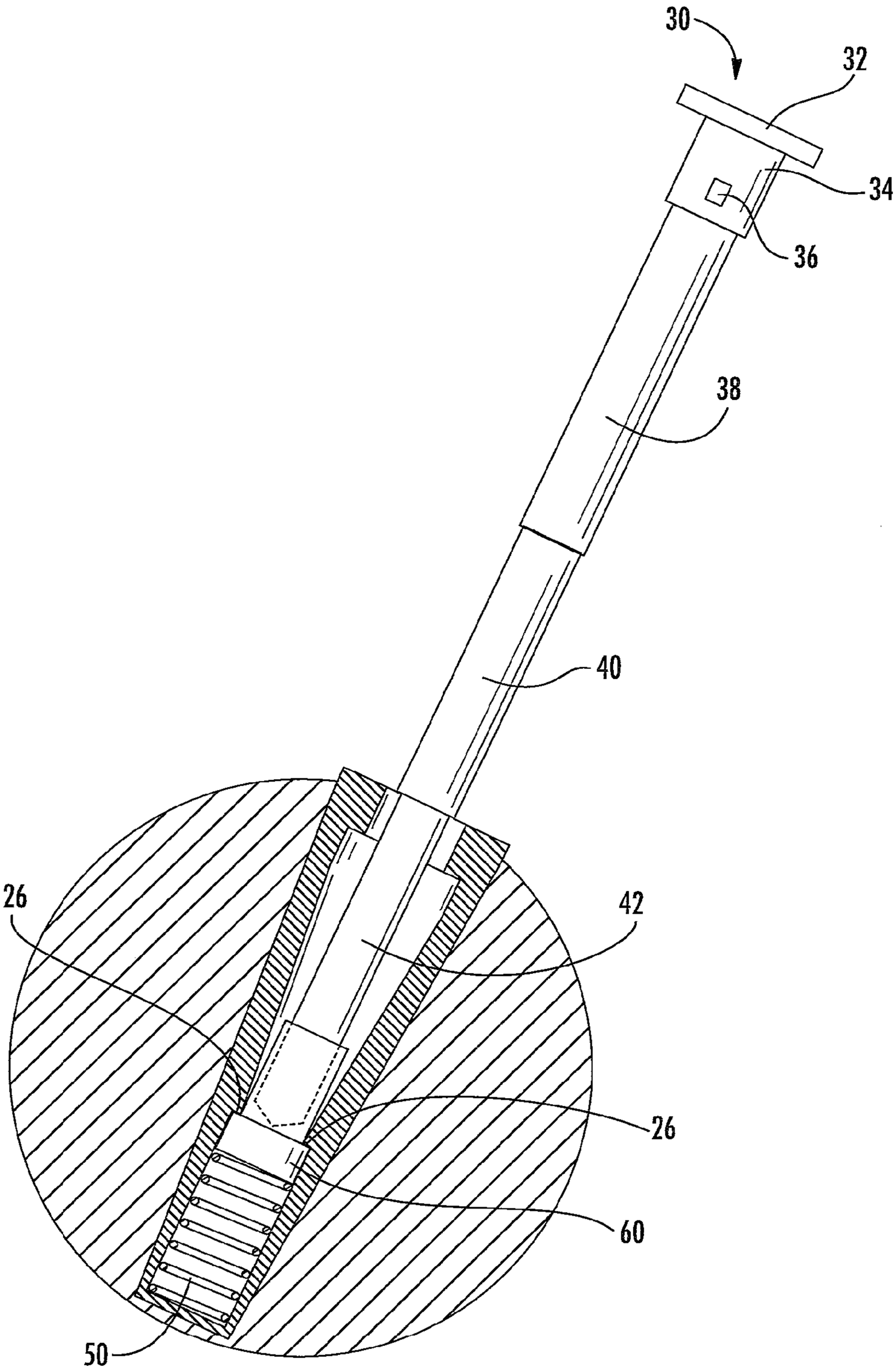


FIG. 5

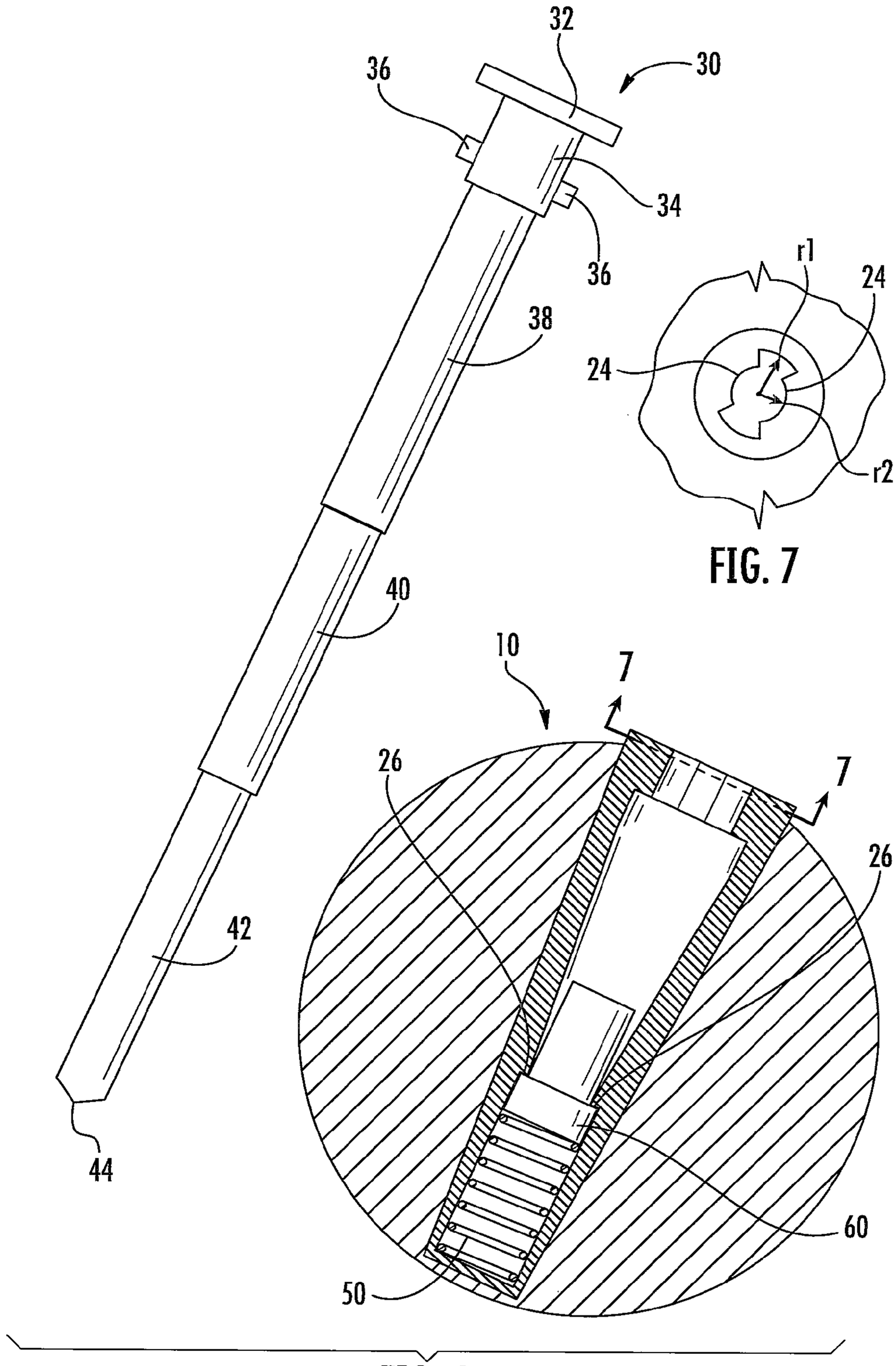


FIG. 6

FIG. 7

AUTOGRAPH BALL WITH REMOVABLE WRITING UTENSIL

BACKGROUND OF THE DISCLOSURE

Obtaining autographs from prominent sports figures is a pastime passed down from generation to generation. One of the items autograph seekers like to have autographed is the implement that the given sport utilizes in the game. For instance, baseball fans like to have a baseball or a bat autographed. Hockey fans may like to have a hockey puck or stick signed. Football or soccer fans may like to have the balls from those given sports autographed. But with the recent movement toward less access to the players or other figures, it becomes harder to get the sports implement and a writing utensil to the figure separately. What is disclosed is an apparatus to get both the item to be autographed and a writing utensil to the sports figure quickly and easily.

SUMMARY OF THE PRESENT DISCLOSURE

One aspect of the present disclosure includes an autograph baseball having a core, a skin substantially covering the core, a hole through the skin and into the core having a closed bottom end, a housing fixed within the hole comprising a latch and a cylindrical recess, a cap comprising an upper portion and a body slidably disposed within the cylindrical recess, a spring disposed in the cylindrical recess and having an end in contact with the body, a writing utensil rotatably mounted within the housing and removably coupled with the upper portion of the cap, the writing utensil further comprising a striker configured to selectively interface with the latch.

Another aspect of the present disclosure includes a sports implement for obtaining autographs, which has a core, a hole in the core having an open end and a closed bottom end, a housing disposed within the hole further comprising a latch, a spring, and a stop rim, a cap rotatably and slidably disposed within the housing comprising a first position wherein the cap compresses the spring toward the closed bottom end and a second position wherein the spring urges the cap against the stop rim, a writing utensil removably coupled with the cap and rotationally coupled with the housing, further comprising a striker selectively interfacing with the latch.

Yet another aspect of the present disclosure includes A piece of sporting equipment with a removable writing utensil for obtaining autographs, having a core, a hole in the core comprising a stop rim, an open end, and a closed bottom end, a housing fixed within the hole and comprising an elastic element, a stop rim, and a latch element, a elastic element having a distal end in contact with the closed bottom end and a second end, a cap in contact with the second end rotatably and slidably disposed within the hole comprising a first position wherein the cap compresses the elastic element toward the closed bottom end and a second position wherein the elastic element is flexed and the cap is urged against the stop rim. It further includes a writing utensil removably coupled with the cap comprising a striker, a cover, a striker body portion, a first body portion, a second body portion, and comprising at least four positions: a. an inserted position wherein writing utensil is in a compressed state, the cap is in the first position and the writing utensil is removably coupled with the cap; b. a rotated position wherein the writing utensil has been rotated such that the striker is free of the latch element, the cap is in the second position, and the cover sticks out of the open end a distance approximately

a half inch; c. an extended position wherein the writing utensil is extended fully, the cap is in the second position, and the writing end remains coupled with the cap; and d. a removed position wherein the writing utensil is fully extended and is removed from the piece of sporting equipment.

These and other aspects, objects, and features of the present disclosure will be understood and appreciated by those skilled in the art upon studying the following specification, claims, and appended drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

In the drawings:

FIG. **1** is an isometric view of the Autograph baseball.

FIG. **2** is a side view of the autograph baseball.

FIG. **3** is a cross-section of the autograph baseball showing the pen in the compressed and inserted state.

FIG. **4** is a cross-section showing the pen in the compressed state at the beginning of the removal process.

FIG. **5** is a cross-section showing the pen in the extended state, as the pen is being removed for use.

FIG. **6** shows a cross-section of the ball with the pen completely removed for use.

FIG. **7** shows a cross-section of the top of the sleeve showing the detail of the latch flanges.

DETAILED DESCRIPTION OF EMBODIMENTS

For purposes of description herein, the terms "upper," "lower," "right," "left," "rear," "front," "vertical," "horizontal," and derivatives thereof shall relate to the disclosure as oriented in FIG. **1**. However, it is to be understood that the disclosure may assume various alternative orientations, except where expressly specified to the contrary. It is also to be understood that the specific devices and processes illustrated in the attached drawings, and described in the following specification are simply exemplary embodiments of the inventive concepts defined in the appended claims. Hence, specific dimensions and other physical characteristics relating to the embodiments disclosed herein are not to be considered as limiting, unless the claims expressly state otherwise.

FIG. **1** generally shows an isometric view of the autograph ball **10** showing the laces **14** of a baseball with the top of a sleeve **20** showing outside the skin **12** of the baseball and a writing utensil **30** inserted into the sleeve **20** with a cover **32** sticking outside of the sleeve. FIG. **1** generally shows the writing utensil **30** in a compressed state, which will be described in more detail below.

FIG. **2** further shows a side view of the autograph ball **10** showing the sleeve **20** and the writing utensil **30** protruding slightly from the general shape of the baseball. FIG. **3** shows a cross-section of the autograph ball **10** as will be described in detail in the following. As shown in FIG. **3**, the ball has a core **16** which is covered by a skin **12**. The core **16** and skin **12** are the typical materials used in baseball manufacturing, in order to replicate the weight and feel of a ball suitable for use in baseball. A hole may be drilled through the skin **12** and into the core **16**, wherein the hole goes into but not through core and out the other side of the ball.

Inserted into the ball **10** is a sleeve **20**. The sleeve as shown in FIG. **3** may be a single piece, generally of plastic, but may also be any other material suitable for a press fit into material such as the core of a baseball. The sleeve **20** may also be two separate pieces that are mated together before being inserted into the core **16**. Preferably the sleeve **20** is

injection molded in two halves which are then mated and connected together using tape, glue, sonic welding, or any other connection known in the art. Once the two pieces are fit together the sleeve **20** may be put in a press (not shown) and press fit into the core. The required press size may be between about 80 pounds pressure to about 150 pounds pressure, preferably about 100 pounds pressure in order to have enough pressure to keep the sleeve **20** in the core **16**, but not damage the ball **10**.

Before the two pieces of the sleeve **20** are connected together a spring **50** may be placed at the bottom of the sleeve **20**. A cap **60** may be placed on top of the spring **50** and the two pieces of the sleeve **20** may be brought together and connected in the above described fashion and the spring **50** and cap **60** may be held in place by a stop rim **26** molded into the sleeve **20**. When assembled, the cap **60** has a first position (as shown in FIG. **3**) where it is urged against the end of the sleeve **20** and the spring **50** is compressed, and a second position (as shown in FIG. **4**) where there is no force acting downwardly on the cap **60** and the spring **50** urges the cap **60** against the stop rim **26** of the sleeve **20** and holds it against the stop rim **26**. With the spring **50** and cap **60** in place the two halves of the sleeve **20** may be coupled and connected in any of the fashions described above, and this assembly is then inserted into the ball using a press as described above. A writing utensil **30**, which is generally a pen or marker able to mark legibly on a baseball, may then be presented to the ball **10**. The writing utensil **30** may have an end **44** that fits within the cap **60** by an interference fit. This interference fit allows the writing utensil **30** to be held in the ball **10**, without the writing utensil **30** to be removed without some additional force. The cap **60** may be able to rotate in the sleeve **20**, which also allows the writing utensil **30** to rotate within the ball **10**.

The writing utensil **30** may include a striker portion **34** (see FIG. **5**) which further includes the striker **36**. The writing utensil **30** preferably includes two strikers **36**. The sleeve **20**, at the top, may include a one or more latch flanges **24**. The latch flanges **24** may have an inner radius r**2** that protrudes into the inner radius r**1** (see FIG. **7**) of the sleeve **20** by anywhere from an eighth of an inch to a quarter of an inch. The latch flanges **24** leave enough room between them to allow the strikers **36** to bypass them as the writing utensil **30** is being inserted or removed from the ball **10**. The writing utensil cover **32** including the striker portion **34** which includes the strikers **36** may then be rotated such that the strikers **36** interfere with the latch flanges **24** and are therefore unable to be removed from the ball **10** without again rotating the strikers **36** to the spaces between the latch flanges **24**.

FIGS. **4-6** illustrate how the writing utensil **30** may be removed from the ball **10**. As shown in FIG. **4**, When a user would like to remove the writing utensil **30** from the ball **10** the cover **32** is rotated, generally about 90°, such that the strikers **36** are no longer interfering with the latch flanges **24**. The spring **50** then urges the cap **60** up and toward the open end of the sleeve **20** which urges the writing utensil **30** in the same direction and the cover **32** and striker portion **34** are protrude from the top of the sleeve **20** by a distance substantial enough for a user to grab the cover **32** and pull the writing utensil **30** out. This distance that the cover **32** sticks out may be a quarter of an inch to three quarters of an inch, more preferably about a half inch.

As shown in detail in FIG. **5**, a user then begins to pull the writing utensil **30** out of the ball **10**, and extends the writing utensil **30** into its extended position. The writing utensil **30** further includes a first portion **38** a second portion **40** and third portion **42**, the third portion further including the tip **44**. The first, second, and third portions **38**, **40**, **42** are created such that the writing utensil **30** may be compressed and the portions collapse upon themselves. When the writing utensil **30** is in the collapsed position it may be two inches to two and a quarter inches, more preferably two inches to two and an eighth inches. The distance must be such that when the writing utensil **30** is inserted into the ball **10** it must not exceed the diameter of the ball **10** when combined with the spring **50**, the cap **60**, and the end portion of the sleeve **20**. When the writing utensil **30** is removed from the ball the third portion **42** remains in contact with the cap **60** via the interference fit and the first, second, and third portions **38**, **40**, **42** are then extended out to an extended state. The extended state of the writing utensil may be four and a half inches to five inches, more preferably four and a half inches.

As shown in FIG. **6**, a user may then remove the writing utensil **30** from the cap **60** such that the writing utensil **30** may be used to autograph the ball **10**. After the writing utensil **30** is used to mark the ball, the writing utensil **30** may then be reinserted into the ball to be returned to the user, by inserting the pen **30** into the ball, urging the third portion into the cap **60**, compressing the spring **50**, compressing the pen **30** into the compressed state, and then rotating the striker portion **34** such that the striker or strikers **36** interfere with the latch flanges **24**.

The sleeve **20**, spring **50**, cap **60**, and writing utensil **30** may also be insertable into other sports implements. These may include, but are not limited to, a hockey puck, a football, a soccer ball, a basketball, and a volleyball. The design for a hockey puck would be similar to what is shown in FIG. **3**, but without the skin **12**. Because a hockey puck's material is homogenous in nature, there is no skin. In the case of a ball that needs to be inflated to be used, a foam may be inserted into the ball. This foam may be of such material that provides enough resistance on the ball to allow a user to sign it using the writing utensil **30**, and also provide enough strength to hold the sleeve **20** in place via the press fit. The foam may take the place of the air in the sports implement, such that no air needs to be inserted into the ball. The foam is inserted into the skin of the ball which is of a material similar to the actual ball that may be used in the given sport, and the foam offers the resistance and the proper feel of the sports implement.

It will be understood by one having ordinary skill in the art that construction of the described disclosure and other components is not limited to any specific material. Other exemplary embodiments of the disclosure disclosed herein may be formed from a wide variety of materials, unless described otherwise herein.

For purposes of this disclosure, the term "coupled" (in all of its forms, couple, coupling, coupled, etc.) generally means the joining of two components (electrical or mechanical) directly or indirectly to one another. Such joining may be stationary in nature or movable in nature. Such joining may be achieved with the two components (electrical or mechanical) and any additional intermediate members being integrally formed as a single unitary body with one another or with the two components. Such joining may be permanent in nature or may be removable or releasable in nature unless otherwise stated.

It is also important to note that the construction and arrangement of the elements of the disclosure as shown in the exemplary embodiments is illustrative only. Although only a few embodiments of the present innovations have been described in detail in this disclosure, those skilled in the art who review this disclosure will readily appreciate that

many modifications are possible (e.g., variations in sizes, dimensions, structures, shapes and proportions of the various elements, values of parameters, mounting arrangements, use of materials, colors, orientations, etc.) without materially departing from the novel teachings and advantages of the subject matter recited. For example, elements shown as integrally formed may be constructed of multiple parts or elements shown as multiple parts may be integrally formed, the operation of the interfaces may be reversed or otherwise varied, the length or width of the structures and/or members or connector or other elements of the system may be varied, the nature or number of adjustment positions provided between the elements may be varied. It should be noted that the elements and/or assemblies of the system may be constructed from any of a wide variety of materials that provide sufficient strength or durability, in any of a wide variety of colors, textures, and combinations. Accordingly, all such modifications are intended to be included within the scope of the present innovations. Other substitutions, modifications, changes, and omissions may be made in the design, operating conditions, and arrangement of the desired and other exemplary embodiments without departing from the spirit of the present innovations.

It will be understood that any described processes or steps within described processes may be combined with other disclosed processes or steps to form structures within the scope of the present disclosure. The exemplary structures and processes disclosed herein are for illustrative purposes and are not to be construed as limiting.

It is also to be understood that variations and modifications can be made on the aforementioned structures and methods without departing from the concepts of the present disclosure, and further it is to be understood that such concepts are intended to be covered by the following claims unless these claims by their language expressly state otherwise.

What is claimed is:

1. An autograph baseball, comprising:

a core;

a skin substantially covering the core;

a hole through the skin and into the core having a closed bottom end;

a housing fixed within the hole comprising a latch and a cylindrical recess;

a cap comprising an upper portion and a body slidably disposed within the cylindrical recess;

a spring disposed in the cylindrical recess and having an end in contact with the body;

a writing utensil rotatably mounted within the housing and removably coupled with the upper portion of the cap, the writing utensil further comprising a striker configured to selectively interface with the latch.

2. The autograph baseball of claim **1**, wherein the writing utensil is removable from the upper portion of the cap without the use of tools.

3. The autograph baseball of claim **1**, wherein the writing utensil further comprises a first body portion, a second body portion, and a third body portion.

4. The autograph baseball of claim **3**, wherein the first body portion is slidably coupled with the second body portion, and the second body portion is slidably coupled with the first body portion.

5. The autograph baseball of claim **4**, wherein the writing utensil has an extended state and a compressed state.

6. The autograph baseball of claim **5**, wherein the writing utensil has a length of approximately 2⅛ inches in the compressed state, and approximately 4½ inches in the extended state.

7. The autograph baseball of claim **5**, wherein the first, second, and third body portions are substantially contained within the hole when the writing utensil is both in the compressed state and coupled with the upper portion of the cap.

8. The autograph baseball of claim **1**, wherein the writing utensil further comprises a cover and a striker body portion, wherein the striker is disposed on the striker body portion.

9. The autograph baseball of claim **8**, wherein the housing has an inner radius and the latch comprises a flange that extends inside the inner radius.

10. The autograph baseball of claim **9**, wherein the striker is configured to interface with the flange to prevent the removal of the writing utensil, and wherein the striker is configured to clear the flange when rotated approximately 90 degrees.

11. A sports implement for obtaining autographs, comprising:

a core;

a hole in the core having an open end and a closed bottom end;

a housing disposed within the hole further comprising a latch, a spring, and a stop rim;

a cap rotatably and slidably disposed within the housing comprising a first position wherein the cap compresses the spring toward the closed bottom end and a second position wherein the spring urges the cap against the stop rim;

a writing utensil removably coupled with the cap and rotationally coupled with the housing, further comprising a striker selectively interfacing with the latch;

wherein the writing utensil further comprises a first body portion, a second body portion, and a third body portion, and wherein the first body portion is slidably coupled with the second body portion, and the second body portion is slidably coupled with the first body portion.

12. The sports implement of claim **11**, wherein the sports implement is one of a baseball and a hockey puck.

13. The sports implement of claim **12**, wherein the core is substantially the same as a core of the sports implement.

14. The sports implement of claim **11**, further comprising a skin over the core, wherein the sports implement is one of a basketball, a soccer ball, a football, and a volleyball.

15. The sports implement of claim **14**, wherein the core substantially comprises a foam material that is substantially inflexible to resist the pressure of the writing utensil when writing on the skin of the sports implement.

16. The autograph baseball of claim **11**, wherein the first, second, and third body portions are substantially contained within the hole when the writing utensil is both in the compressed state and coupled with the upper portion of the cap.

17. The autograph baseball of claim **11**, wherein the housing has an inner radius and the latch comprises a flange that extends inside the inner radius.

18. The autograph baseball of claim **17**, wherein the striker is configured to interface with the flange to prevent the removal of the writing utensil, and wherein the striker is configured to clear the flange when rotated approximately 90 degrees.

19. A piece of sporting equipment with a removable writing utensil for obtaining autographs, comprising:

a core;

a hole in the core comprising an open end, and a closed bottom end;

a housing fixed within the hole and comprising an elastic element, a stop rim, and a latch element;

a elastic element having a distal end in contact with the closed bottom end and a second end;

a cap in contact with the second end rotatably and slidably disposed within the hole comprising a first position wherein the cap compresses the elastic element toward the closed bottom end and a second position wherein the elastic element is flexed and the cap is urged against the stop rim;

a writing utensil removably coupled with the cap comprising a striker, a cover, a striker body portion, a first body portion, a second body portion, and comprising at least four positions:

a. an inserted position wherein writing utensil is in a compressed state, the cap is in the first position and the writing utensil is removably coupled with the cap;

b. a rotated position wherein the writing utensil has been rotated such that the striker is free of the latch element, the cap is in the second position, and the cover sticks out of the open end a distance approximately a half inch;

c. an extended position wherein the writing utensil is extended fully, the cap is in the second position, and the writing end remains coupled with the cap; and

d. a removed position wherein the writing utensil is fully extended and is removed from the piece of sporting equipment.

* * * * *